

Fig. 1 Observed monthly P (P1), 3 month running mean P (P2) and 2m column monthly soil moisture anomalies averaged over Illinois. Observed vertical profile of 2m column SM anomalies is derived from 0-10, 1-30, 30-50, 50-70, 70-90, 90-110, 110-130, 130-150, 150-170, 170-190 and 190-200 cm soil layers.

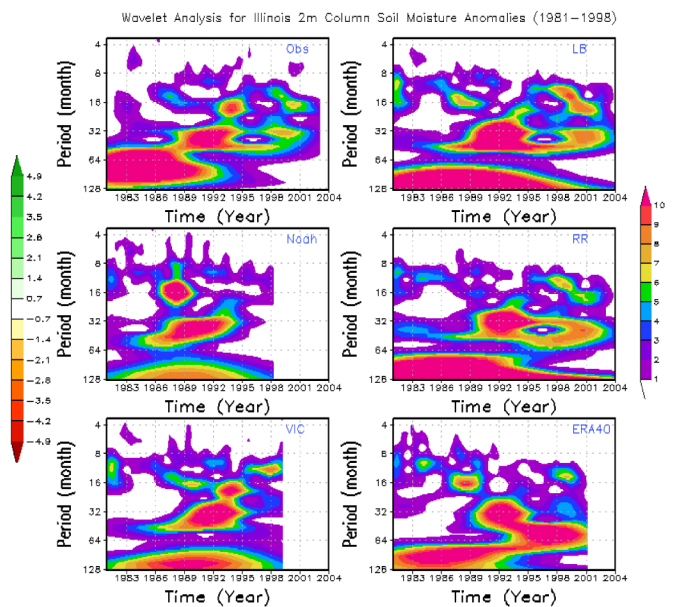


Fig.2 Local wavelet power spectrum of observed and simulated soil moisture anomaly time series, using Morlet wavelet and normalized by their variances, respectively.

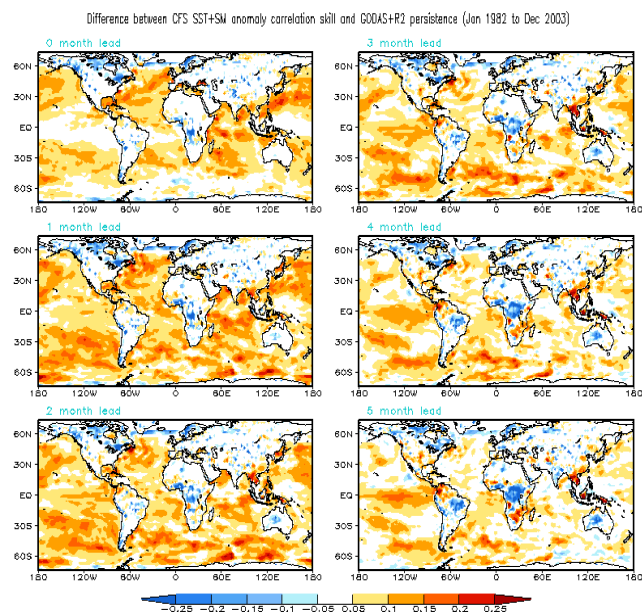


Fig.3 The Difference between the CFS Hindcast SST+SM and their persistence.

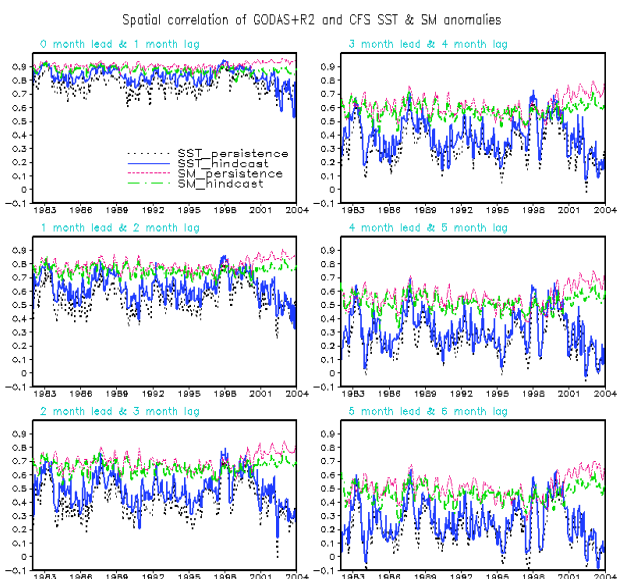


Fig.4 The spatial correlation of GODAS+R2 and CFS SST & SM anomalies.

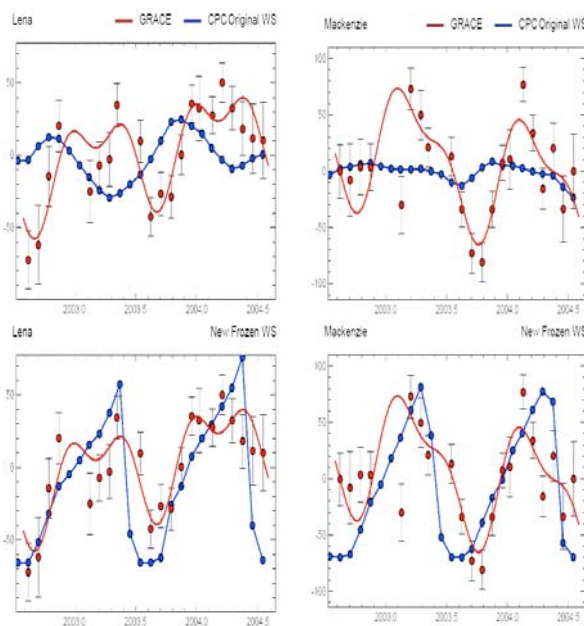


Fig.5 Regional averaged total soil water anomalies with and without snow.

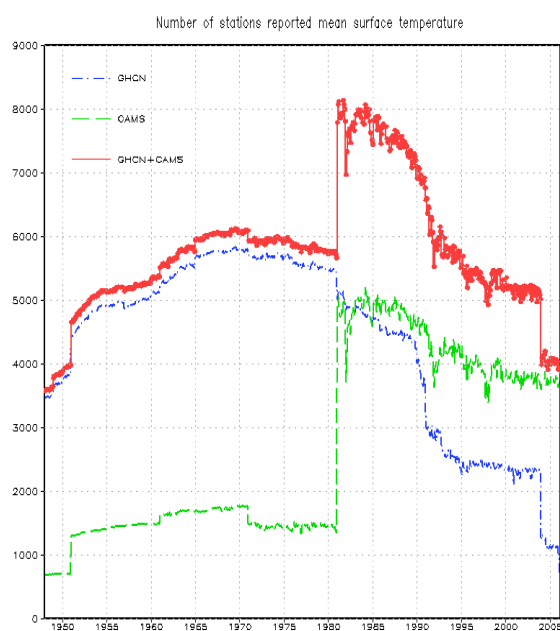


Fig.6 Number of the station reports on monthly mean surface air temperature from the GHCN, CAMS network and their combined results (GHCN+CAMS) with duplicated stations removed.

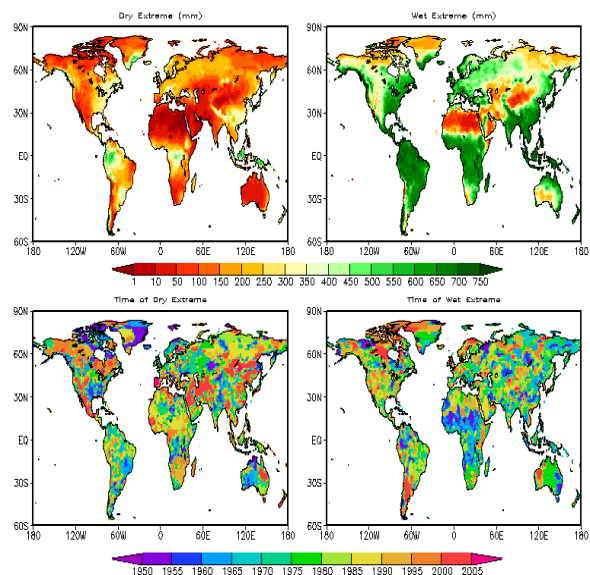


Fig.7 Simulated monthly minimum (left) & maximum (right) CPC LB land surface water content and its correspondent time (year) for 1948-present.

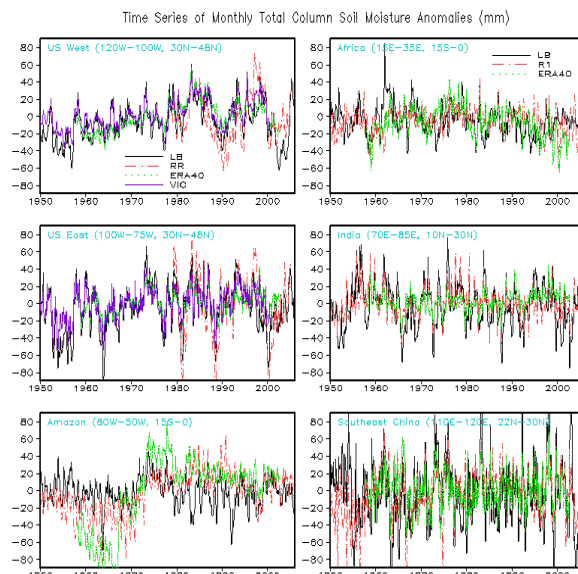


Fig.8 Time series of land surface water estimated by LB, RR, R1, ERA40 & VIC (averaged over the domains shown) for 1948-present.